

Abstract

Systems and methods for determining a power disruption index indicative that provides subscribers with a forecast of weather conditions that are likely to cause interruptions to power distributions systems within their specific areas of service. The Power Disruption Index (PDI), is a calculation of a number of forecast weather parameters including severe thunderstorm probabilities and intensities, wind speeds, wind gusts, and snowfall and ice accretion. The index combines each of these input parameters with a specific weighting based on the forecast intensity of each of the parameters, along with alert threshold criteria provided by each client utility. The output PDI is a forecast of local weather conditions for a specific local service area or power distribution network.